



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Art Unit: 3724
Examiner: Clark F. Dexter
Appellant: Daniel Bone et al.
Serial No.: 10/077,718
Filed: February 15, 2002
For: Clamping Mechanism
Atty. Docket: 0275S-000327/DVA

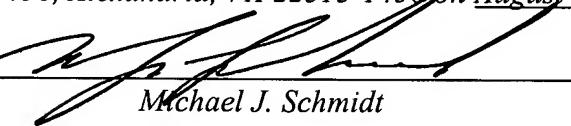
131 Appeal
PATENT
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APPEAL BRIEF
Appeal No. _____

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By:


Michael J. Schmidt

Director of the United States Patent and Trademark Office
P.O. Box 1450
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Dear Sir:

This is an appeal from the April 8, 2003 Final Rejection of Claims 22 and 23 of the above-identified patent application. Claims 22-28 are currently pending; Claims 25-28 are withdrawn from consideration at this time; and Claims 1-21 were cancelled at the time of filing this divisional application.

Claims 22 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tompkins* (USP 4,138,867). The claims on appeal are Claims 22 and 23 and they are reproduced in attached Appendix A, along with allowed Claim 24 and withdrawn Claims 25-28.

REAL PARTY IN INTEREST

Black & Decker Inc. is the real party in interest, being the Assignee of the present application. The Assignment for the parent Application, U.S. Serial No. 09/015,615, was recorded on January 29, 1998 at Reel 8951, Frame 0285.

RELATED APPEALS AND INTERFERENCES

To the best of Applicants' knowledge, no other appeals or interferences are pending which will directly affect or be directly by or have a bearing on the Board's decision in the present pending appeal.

STATUS OF CLAIMS

Claims 22 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tompkins* (USP 4,138, 867). Claim 24 has been allowed. Claims 25-28 are withdrawn at this time. The claims on appeal, the allowed claim and the withdrawn claims are reproduced in attached Appendix A. A copy of *Tompkins* is included in Appendix B.

STATUS OF AMENDMENTS

A Response to the Final Rejection was filed by the Applicants on May 28, 2003. The Response presented arguments for patentability, but it did not amend the claims. The Examiner,

in an Advisory Action mailed June 10, 2003, stated that he maintains his position regarding the obviousness rejection. A Notice of Appeal was filed on June 19, 2003.

SUMMARY OF THE INVENTION

The present invention relates to a clamping mechanism for clamping an object. The clamping mechanism comprises a housing, a rod attached to the housing, and a clamping arm which is rotatably mounted on the arm. The clamping arm rotates through 360° around an axis of rotation. A non-releasable one-way rotary clutch is positioned between the rod and the clamping arm. The one-way clutch permits the clamping arm to freely rotate in only one direction around the axis of rotation. The clamping arm has a center of mass which is spaced from the axis of rotation. Thus, the clamping mechanism of the present invention is designed to have the arm rotate in a single direction to clamp an object with the non-releasable clutch, prohibiting rotation of the arm in the opposite direction to release the clutch.

ISSUE

Appellants present the following issue for review:

1. Whether or not Claims 22 and 23 are unpatentable under 35 U.S.C. § 103(a) over *Tompkins* (USP 4,138, 867).

GROUPING OF CLAIMS

Claims 22 and 23 stand or fall together.

ARGUMENT

The present invention relates to a clamping mechanism which includes a clamping arm that is rotatable in only one direction due to a non-releasable one-way clutch. The one-way clutch prohibits the movement of the clamping arm in the opposite direction such that once the clamping arm engages an object by rotation of the arm, the one-way clutch prohibits the release of the object by prohibiting reverse rotation of the clamping arm.

It is respectfully requested that the Examiner has no basis for taking Office Notice to provide the missing elements for the *Tompkins* reference.

The Examiner based his rejection on *Tompkins* which, in the Examiner's opinion, discloses a clamping mechanism with "almost every structural limitation." However, the Examiner states that *Tompkins* lacks a non-releasable one-way rotary clutch positioned between the rod and the clamping arm. The Examiner then takes Official Notice that non-releasable one-way rotary clutches are old and well known in the art and provide various well known benefits including enabling rotational movement in one direction while preventing undesired movement in an opposite direction. Such clutches are often provided on one-time use devices (emphasis added).

Tompkins discloses a pair of handcuffs "having two wings connected by means of a hinge. . . . A detent or pawl, cam operated and spring and pin biased, engages and disengages teeth to alternately hold the shackle in place and to allow it to swing open." (Abstract, emphasis added).

Thus, *Tompkins* not only does not disclose a non-releasable one-way clutch, it specifically discloses a releasable one-way clutch to allow it to swing open.

The Examiner's concept of adding a one-way non-releasable clutch to *Tompkins* goes against its teachings, as well as the fact that there is absolutely no suggestion or motivation to make this substitution of elements.

A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" (emphasis added) because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). *See also In re Kotzab*, 217 F.3d 1365, 1371; 55 USPQ2d 1313, 1318 (Fed. Cir. 2000). Here, there is no incentive to combine *Tompkins* with the Official Notice of the Examiner in order to replace the releasable one-way clutch with a non-releasable clutch for the simple reason that adding a one-way non-releasable clutch to *Tompkins* is inconceivable due to the fact that the addition of the one-way non-releasable clutch makes *Tompkins* totally unsatisfactory for its intended purpose.

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900; 221 USPQ 1125 (Fed. Cir. 1984). Replacing the releasable one-way clutch with a non-releasable one-way clutch in *Tompkins* modifies it such that it is unsatisfactory for its intended purpose. *Tompkins* is designed to be locked and released numerous times. Thus, the incorporation of the releasable one-way clutch enables the handcuffs to be used more than once. Because the Examiner's modification makes *Tompkins* unsatisfactory for its intended use, the combination of *Tompkins* with the Official Notice by the Examiner is inappropriate and there is no suggestion or motivation to make this modification.

To establish a *prima facie* case of obviousness, the Examiner must show “some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” *In re Fine*, 837 F.2d at 1074; 5 USPQ2d at 1598 (Fed. Cir. 1988). There is no suggestion to combine, however, if a reference teaches away from its combination with another source. *Id.* at 1075; 5 USPQ2d at 1599.

A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the references, or would be led in a direction divergent from the path that was taken by the applicant . . . [or] if it suggests that the line of development flowing from the reference’s disclosure is unlikely to be productive of the result sought by the applicant.

In re Gurley, 27 F.3d 552, 553; 31 USPQ2d 1130, 1131 (Fed. Cir. 1994).

Here, the Examiner has taken Official Notice that it would be obvious to replace the releasable one-way clutch of *Tompkins* with the non-releasable one-way clutch of the present invention. An object of *Tompkins* (column 2, lines 24-27) is to have a hinge pin to allow the sections to be rotated toward and away from each other (emphasis added). Replacing the releasable one-way clutch of *Tompkins* with the non-releasable one-way clutch using Official Notice by the Examiner clearly goes against the teachings of *Tompkins*.

If when combined, the reference “would produce a seemingly inoperative device,” then they teach away from their combination.” *In re Sponnoble*, 405 F.2d 578, 587; 160 USPQ 237, 244 (CCPA 1969); *see also In re Gordon*, *supra* at 902; 221 USPQ at 1127. Here, there is no motivation to replace the releasable one-way clutch with a non-releasable one-way clutch using the Examiner’s Official Notice in *Tompkins* because this modification of *Tompkins* would

render the handcuffs inoperable for their intended purpose, which is to allow rotation of the components towards and away from each other to allow multiple uses.

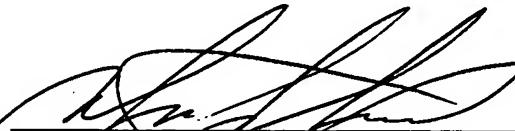
CONCLUSION

Applicants respectfully submit that the Examiner has not proven that his combination of a single reference with his Official Notice presents a *prima facie* case of obviousness as there is no motivation, teaching or suggestion in the prior art to combine the Official Notice by the Examiner with the single piece of prior art. In fact, combining the Official Notice of the Examiner with *Tompkins* teaches away from the combination. In addition, the combination of the Official Notice by the Examiner renders the handcuffs of *Tompkins* unsatisfactory for its intended purpose if multiple use.

Accordingly, reversal of the final rejection of Claims 22 and 23 is respectfully requested.

Respectfully requested,

HARNESS, DICKEY & PIERCE, P.L.C.



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Attachments: Appendix A – Claims on appeal, allowed claim and withdrawn claims
Appendix B – *Tompkins* (USP 4,138, 867)

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Appendix A

Claims 22 and 23 on appeal, allowed Claim 24 and withdrawn Claims 25-28 are as follows:

22. (on appeal) A clamping mechanism for clamping an object, said clamping mechanism comprising:

a housing;

a rod attached to said housing;

a clamping arm rotatably mounted on the rod, said clamping arm being rotatable through 360° about an axis of rotation;

a non-releasable one way rotary clutch positioned between and operatively engaging said rod and said clamping arm to permit the clamping arm to freely rotate in only one direction about the axis of rotation; and

the clamping arm having a centre of mass spaced apart from the axis of rotation.

23. (on appeal) A clamping mechanism according to Claim 22 wherein the clamping mechanism further comprises a support member attached to said housing.

24. (allowed) A clamping mechanism according to Claim 23 wherein the support member comprises a slide element, the slide element being slidably mounted on the housing, wherein the clamping arm is rotatably mounted on the slide element so that the sliding movement of the slide element and clamping arm guides the object held between the support member and the clamping arm.

25. (withdrawn) A clamping mechanism according to Claim 22 wherein the clamping arm is adapted to be mountable on a saw via a reversing slip clutch which allows the clamping arm to rotate in the reverse direction to the direction of free rotation of the rotary one way clutch if a reverse torque is exerted on the clamping arm which exceeds a specified threshold.

26. (withdrawn) A clamping mechanism according to Claim 25 wherein the one way rotary clutch and the reverse slip clutch are co-axially mounted.

27. (withdrawn) A clamping mechanism according to Claim 22 wherein the clamping arm is made from a plastics material having a metal weight located towards an end of the clamping arm distant from the one way rotary clutch.

28. (withdrawn) A clamping mechanism according to Claim 22, wherein the clamping arm has a holding surface and an end distant from the one way rotary clutch, the distant end having a curvature lying in a plane, so that the curvature direction of the clamping arm end is opposite to the curvature direction of the holding surface.